

Wild Turkey Landowner Brood Survey 2005

By Jessica Kitchell

Abstract

In the primary turkey range, the mean (SE) ratio of poults to hens observed averaged 2.46 ± 0.1 in 2005 compared to 2.25 ± 0.1 in 2004 and the long-term (1988-2004) average of 2.92 ± 0.1 . Fifty-five percent (55%) of hens observed were accompanied by poults during 2005, compared to 52% in 2004. The long-term average is 50.7%.

Methods

Originally, names and addresses for this survey were chosen from a master list compiled in the late 1980's with nonrespondents from previous years being systematically culled from the list. As the size of the list became smaller efforts to increase the size were made during the mid 1990's late 1990's and again in 2003. In the 1990's landowners of 40 or more acres were selected from a mailing list from the University of Wisconsin Extension rural landowner list. In 2003 landowners of 40 or more acres were selected from available county tax roles. Names and addresses were randomly drawn in proportion to ownership in each county. Active names from the previous master list were added to this new list, and nonrespondents are annually culled.

A post-paid card with survey objectives and instructions was mailed in June, July, and August to 10,321 landowners, some of whom were surveyed during previous years. Recipients were requested to report the number of turkey broods, poults/brood, and adult hens with or without a brood seen during June, July, and August. Crawford, Grant, Iowa, LaCrosse, Monroe, Richland, and Vernon counties have been surveyed annually since 1988 and make up Wisconsin's primary turkey range. Comparative statistics were obtained from Buffalo, Dane, Jackson, Juneau, Lafayette, Sauk, and Trempealeau counties beginning in 1990. Calumet, Columbia, Jefferson, Marinette, Pierce, Waukesha, and Waupaca counties were added for comparison in 1993 (Figure 1). The data were analyzed using the Statistical Analysis System (SAS).

Survey data were tabulated by county and month to obtain an index of poult/hen ratios and the proportion of hens with poults. Reports that were either not dated or that had observations from a month other than those specified were excluded.

Results

Reports were received from 2,812 respondents. The response rate was 27%. In the primary turkey range, the mean (SE) poult/hen (P/H) ratio averaged 2.46 ± 0.1 in 2005, compared to 2.25 ± 0.1 in 2004 (Table 1). The long-term P/H ratio averaged 2.92 ± 0.1 between 1988 and 2004 (Figure 2). Fifty-five percent of hens were accompanied by poults in 2005, compared to 52% in 2004. The long-term average of hens with poults is 50.7%.

Within the 14 other traditional counties, the P/H ratio averaged 2.7 ± 0.1 in 2005, and 58% of hens were accompanied by poults. In 2004, the P/H ratio averaged 2.4 ± 0.1 , and 55% of hens were accompanied by poults.

The P/H ratio increased from 2.1 in June to 2.8 in August (Table 2). Similar trends were observed during 1988-2004 due in part to greater visibility of poults as they attained larger size during the summer. The increase may also be due to “gang brooding” behavior: a phenomenon where two or more hens with broods flock together. This behavior is initiated in late June or July.

Table 1. Comparison of poult/hen ratios within the seven traditional southwestern counties during 2004-2005.

Survey Initiation	County	Year	Reported Sightings	Total Poults	Total Hens	Poult/Hen
1988 - Primary Turkey Range	Crawford	2005	149	812	287	2.83
		2004	161	713	343	2.08
	Grant	2005	145	697	291	2.40
		2004	171	751	366	2.05
	Iowa	2005	197	929	437	2.13
		2004	188	868	439	1.98
	La Crosse	2005	333	1,748	736	2.38
		2004	265	1,412	580	2.43
	Monroe	2005	285	1,620	616	2.63
		2004	285	1,555	648	2.40
	Richland	2005	197	1,013	388	2.61
		2004	198	973	426	2.28
	Vernon	2005	109	491	211	2.33
		2004	90	468	190	2.46
	7 County Subtotal	2005	1,415	7,310	2,966	2.46
		2004	1,358	6,740	2,992	2.25
1990	Buffalo	2005	215	1,389	447	3.11
		2004	224	1,462	481	3.04
	Dane	2005	127	602	266	2.26
		2004	108	439	290	1.51
	Jackson	2005	393	2,117	822	2.58
		2004	338	1,743	733	2.38
	Juneau	2005	504	2,889	1,125	2.57
		2004	370	1,832	844	2.17
	Lafayette	2005	153	736	339	2.17
		2004	84	464	192	2.42
	Sauk	2005	234	1,115	500	2.23
		2004	210	1,113	445	2.50
	Trempealeau	2005	260	1,427	509	2.80
		2004	88	425	172	2.47
	7 County Subtotal	2005	1,886	10,275	4,008	2.56
		2004	1,422	7,478	3,157	2.37
1993	Calumet	2005	98	640	181	3.54
		2004	111	644	238	2.71
	Columbia	2005	390	2,376	817	2.91
		2004	274	1,399	642	2.18
	Jefferson	2005	518	2,735	1,167	2.34
		2004	199	870	463	1.88
	Marinette	2005	580	3,363	1,242	2.71
		2004	427	2,534	1,026	2.47
	Pierce	2005	161	1,204	349	3.45
		2004	160	1,234	375	3.29
	Waukesha	2005	172	834	355	2.35
		2004	26	91	57	1.60
	Waupaca	2005	394	2,451	866	2.83
		2004	176	1,102	392	2.81
	7 County Subtotal	2005	2,313	13,603	4,977	2.73
		2004	1,373	7,874	3,193	2.47

Table 2. Comparison of monthly changes in the poult/hen ratio within the seven primary turkey range counties during 2004-2005.

Month	Poult/Hen	
	2004	2005
June	1.6	2.1
July	2.3	2.7
August	2.7	2.8
Mean	2.3	2.5

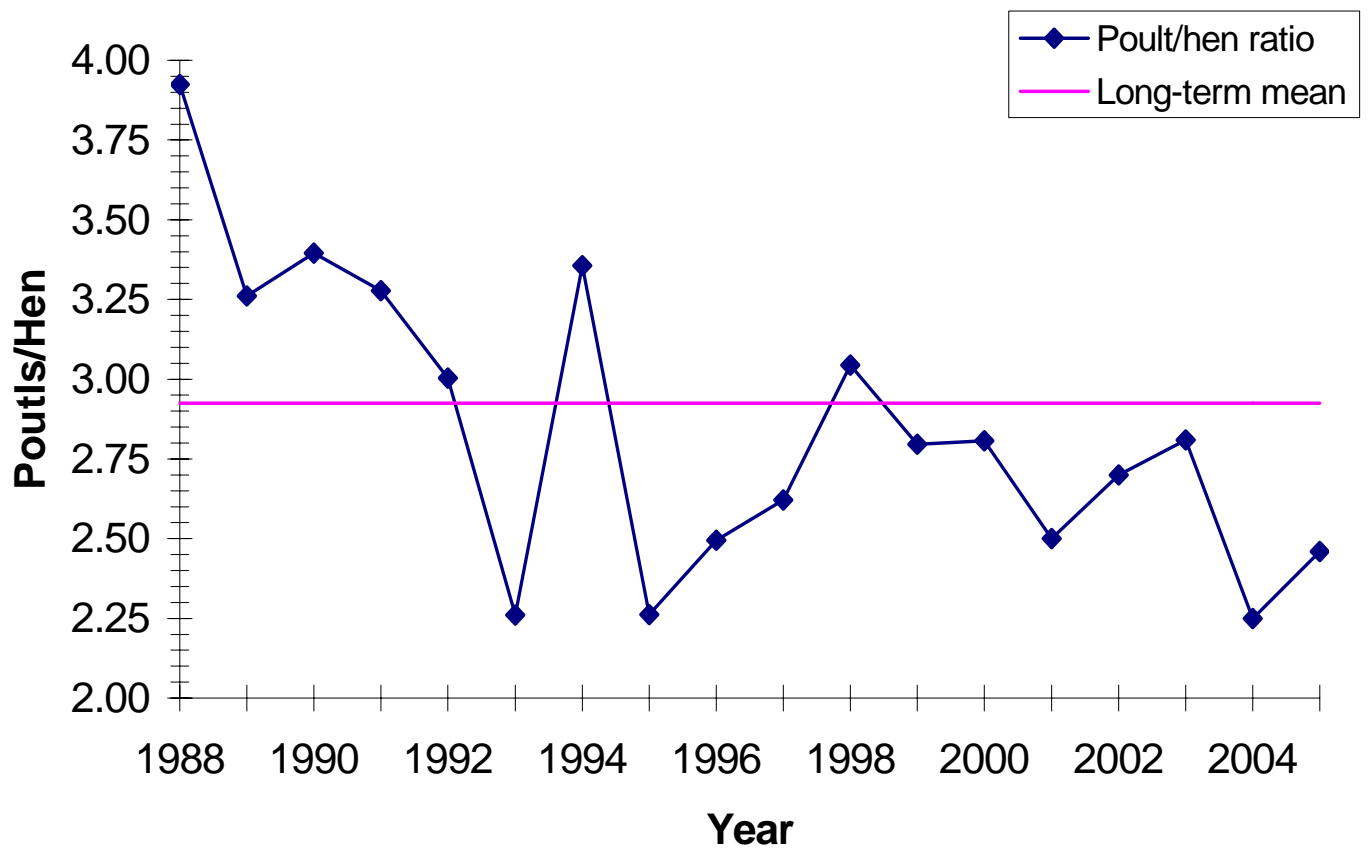


Figure 2. Trends in the poult/hen ratio within the seven primary turkey range counties surveyed from 1988-2005.